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Technical Datasheet

Type 546 Pro Linear Ball Valve



Linear Ball Valve type 546 Pro is designed for precise flow control in chemical processing, life sciences, microelectronics, measurement and control, water treatment, food and beverage, and shipbuilding applications. Its specially designed ball ensures a linear flow characteristic across the entire opening angle, making it ideal for control loops. It is suitable for neutral and aggressive liquid media.

- Special ball geometry enables linear flow over full opening angle
- High flow capacity with minimal dead space for efficient control
- Modular design for manual, electric, or pneumatic actuation
- Universal actuator interface for flexible automation
- Lockable ergonomic lever with integrated service tool
- Integrated fixation and spacers for aligned, simplified installation
- Individual configuration and Data Matrix Code for traceability

Technical data

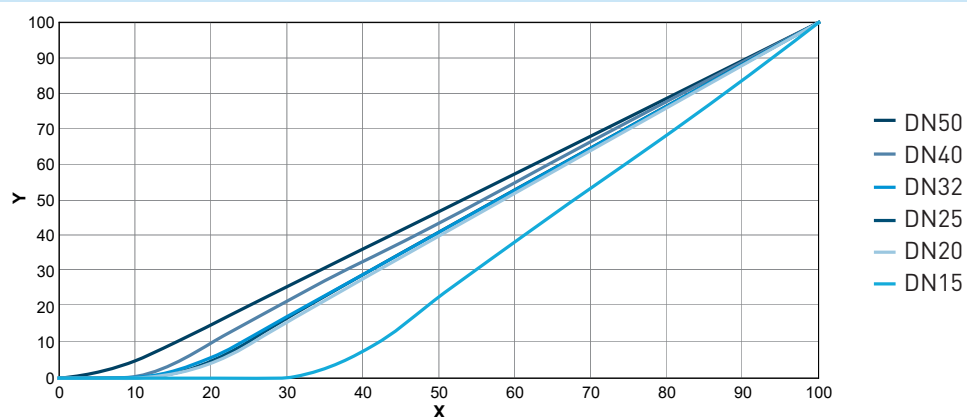
Specifications		
Dimensions	d20/DN15 – d63/DN50	
Materials	Valve body	PVC-U, PVC-C, ABS, PP-H, PVDF
	Lever	PP-GF30
Gasket materials	O-rings	EPDM, FKM, FFKM
	Ball seat	PTFE, PVDF
Pressure levels	ABS / PP-H	PN10
	PVC-U / PVC-C / PVDF	PN16
Connections	Fusion / solvent cement sockets	ISO, ASTM, JIS, BS
	Fusion / solvent cement spigot	ISO
	Threaded socket	Rp, NPT, Rc
	Backing flange	ISO, ANSI, BS, JIS
	Butt fusion spigots	SDR11 and SDR17.6
	PE100 electrofusion spigot or butt fusion spigot	SDR11 and SDR17.6
	EN 1092 PN 10, ASME B16.5 Class 150, BS 1560-3.2 Class 150, JIS B2220 10K	
	Neutral and aggressive media; chemical resistance depends on the selected material (see online tool ChemRes PLUS).	
Flow media	Conditionally suitable for media containing small amounts of solids or particles, subject to prior clarification with GF.	
	Ball valves type 546 Pro are suitable for compressed air regulation up to 10 bar (at 20 °C). The compressed air must be dry and free of oil. For this application PP-H is recommended as valve body material and FKM for the gaskets. FKM is suitable for compressed air containing mineral oil. Some ester oils can attack the material FKM, in such cases the use of EPDM gaskets is recommended.	
Transport of compressed air	Suitable piping systems are ecoFIT (PE) or INSTAFLEX (PB). The ball valve type 546 Pro is available with suitable connection parts.	
Actuation variants	Manually operated (lockable hand lever)	
	Pneumatic FC, FO, DA with and without manual override	
	Electrical AC: 100 – 230 V, AC/DC: 24 V, with / without manual override	
Compatible GF actuators	Electric actuators	EA15-250, dEA15-250, EA04
	Pneumatic actuators	PPA08-80, PA30-70
Third-party actuators	EN ISO 5211	
Marking	DataMatrix-Code with production data	
Product standard	EN ISO 16135	
Test standard	ISO 9393-2, EN 12266-1 (leakage rate A)	
Approvals	ACS, D.M. 174, DNV, FDA, QAP/ITP, NSF/ANSI, SIL, WRAS, ABS, BV, DIBt, RINA, LR	



Kv 100 values

DN (mm)	Inch (inch)	d (mm)	Linear Ball Valve type 546 Pro		
			Kv 100 (l/min)	Cv 100 (US gal/min)	Kv 100 (m ³ /h)
10	3/8	16	90	6	5
15	1/2	20	90	6	5
20	3/4	25	166	12	10
25	1	32	235	16	14
32	1 1/4	40	417	29	25
40	1 1/2	50	626	44	38
50	2	63	781	55	47

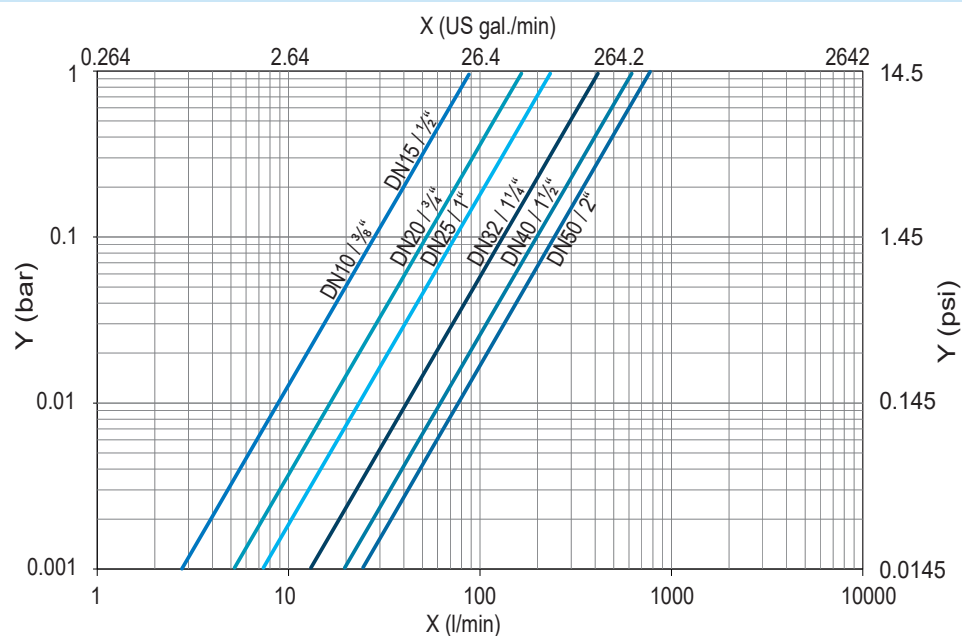
Flow characteristics



X Opening angle (%)
Y Kv, Cv value (%)

Pressure losses

d16/DN10 – d63/DN50



X Flow rate
(l/min, US gal/min)
Y Pressure loss Δp (bar, psi)

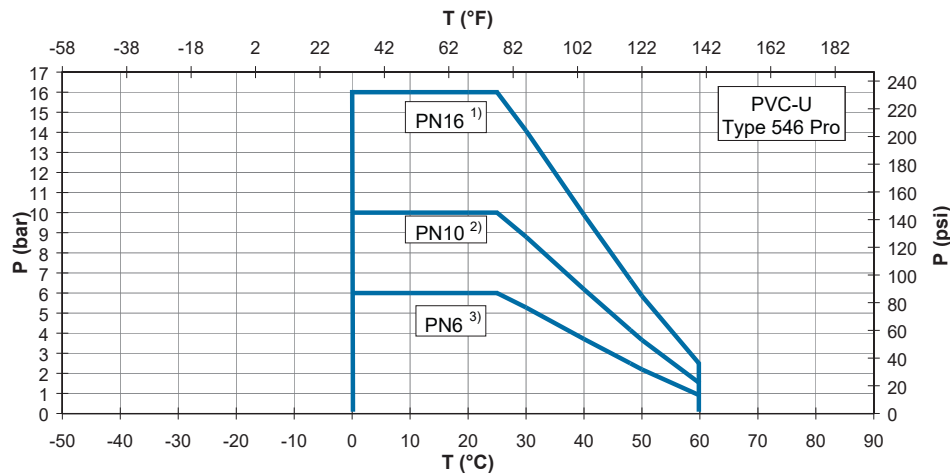
Pressure-temperature diagrams

The following pressure-temperature diagrams are based on a service life of 25 years and water or similar media.

T Temperature (°C, °F)

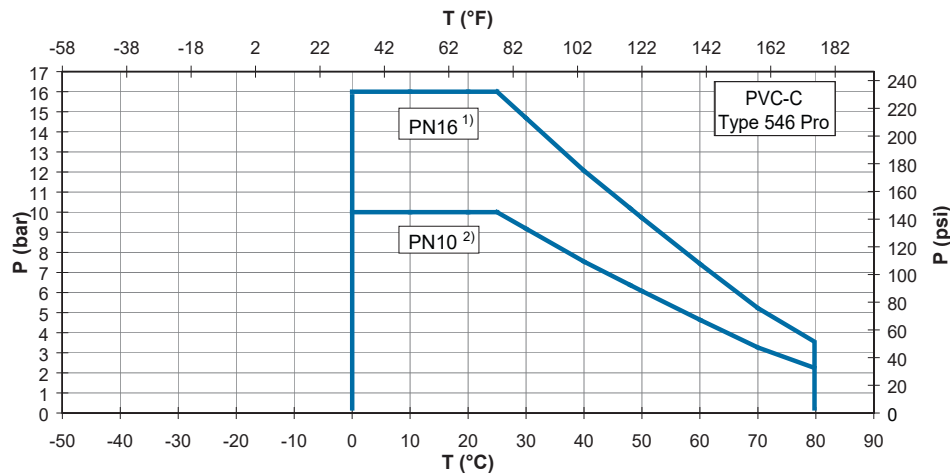
P Permissible pressure (bar, psi)

PVC-U



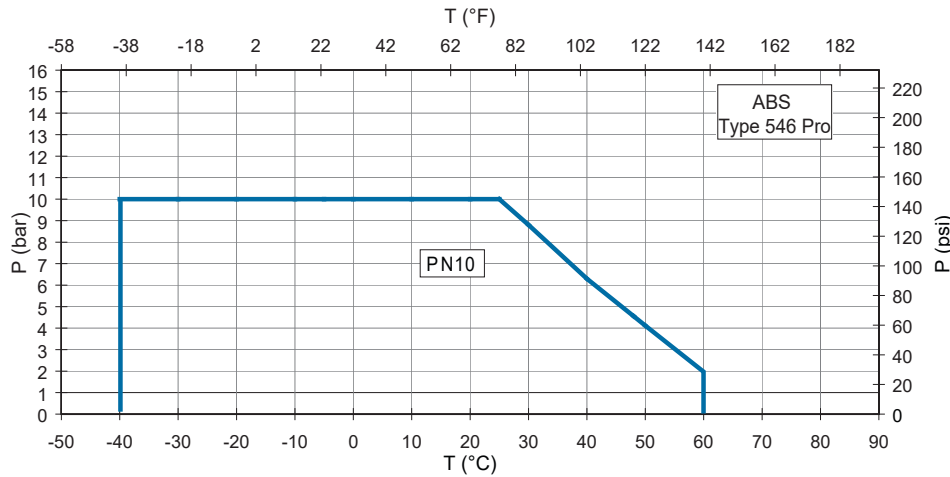
- ¹⁾ The central part of the ball valve is designed for the nominal pressure PN16
- ²⁾ Depending on the connection, the nominal pressure is reduced to PN10
- ³⁾ Depending on the connection, the nominal pressure is reduced to PN6

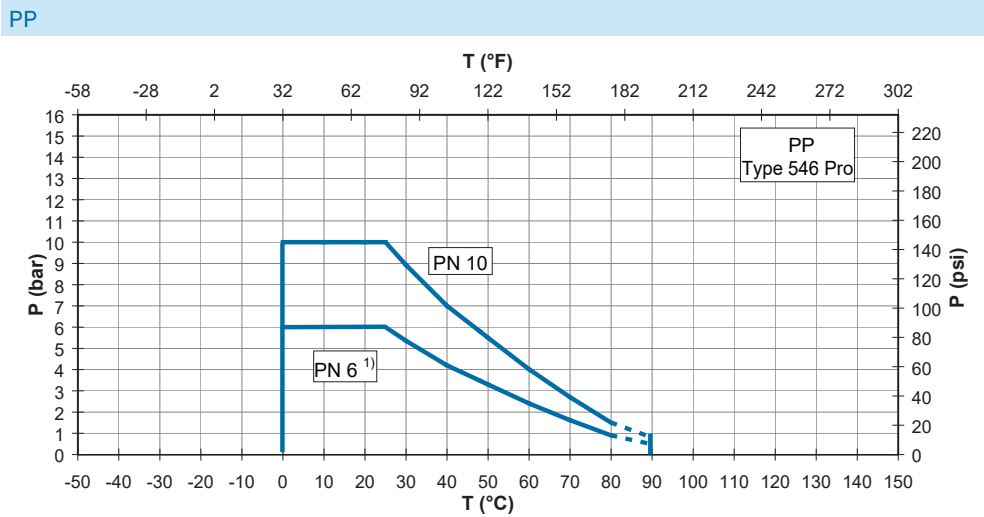
PVC-C



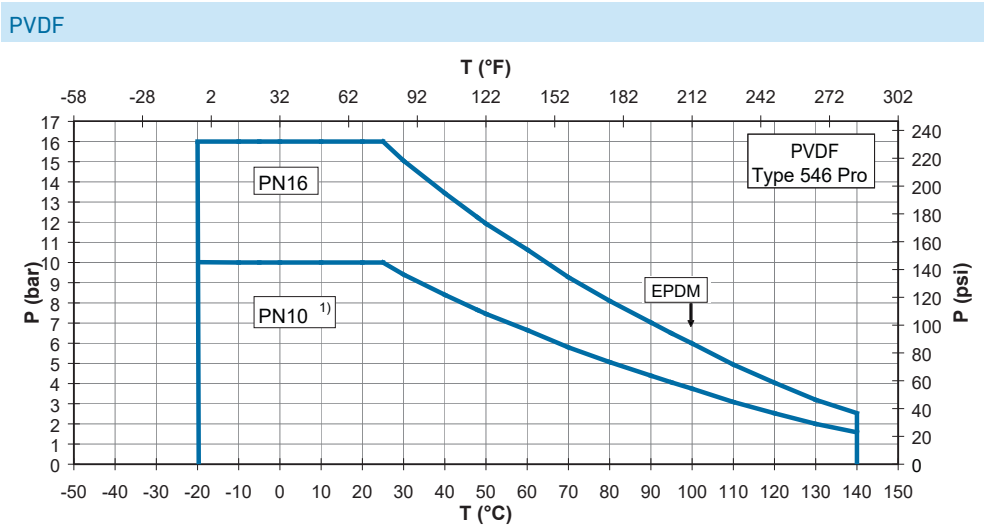
- ¹⁾ The central part of the ball valve is designed for the nominal pressure PN16
- ²⁾ Depending on the connection, the nominal pressure is reduced to PN10

ABS



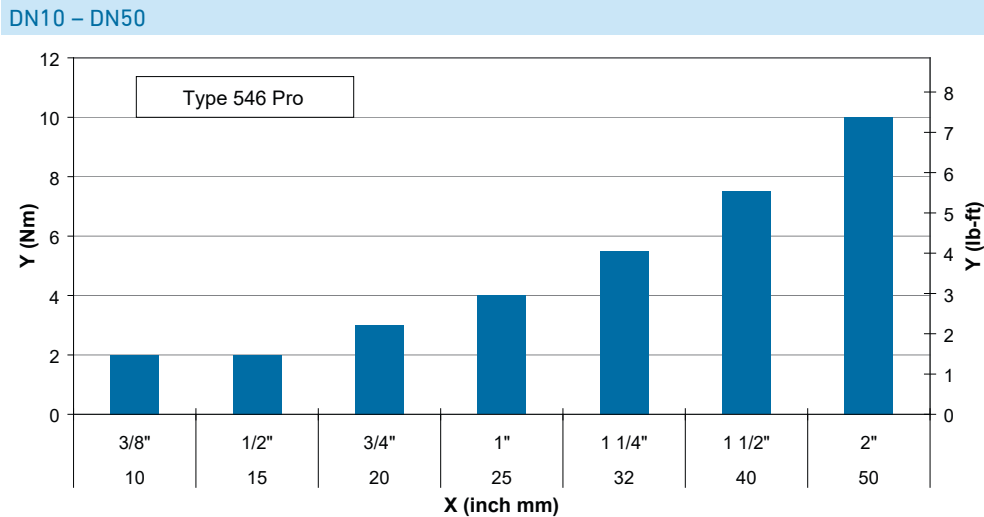


1) For example, ball valve with butt fusion spigot PP or PE100, SDR 17



1) For example, ball valve with threaded socket EPDM gasket up to max. 100 °C

Operating torque



X Nominal diameter DN (mm, inch)
Y Tightening torque (Nm, lb-ft)
Average values at nominal pressure. Depending on the application (e.g. operating speed, fluid, temperature, etc.) about 2 times the operating torque should be taken for sizing actuators.

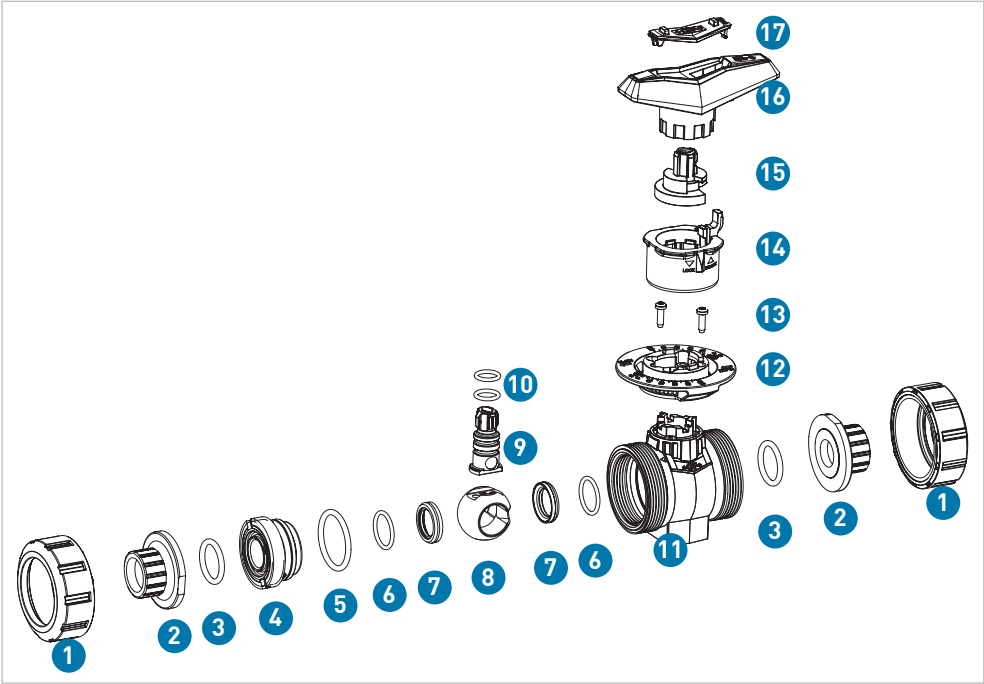
Reference values for tightening torque of screws

Flange connections with profile flange seal or flat gaskets

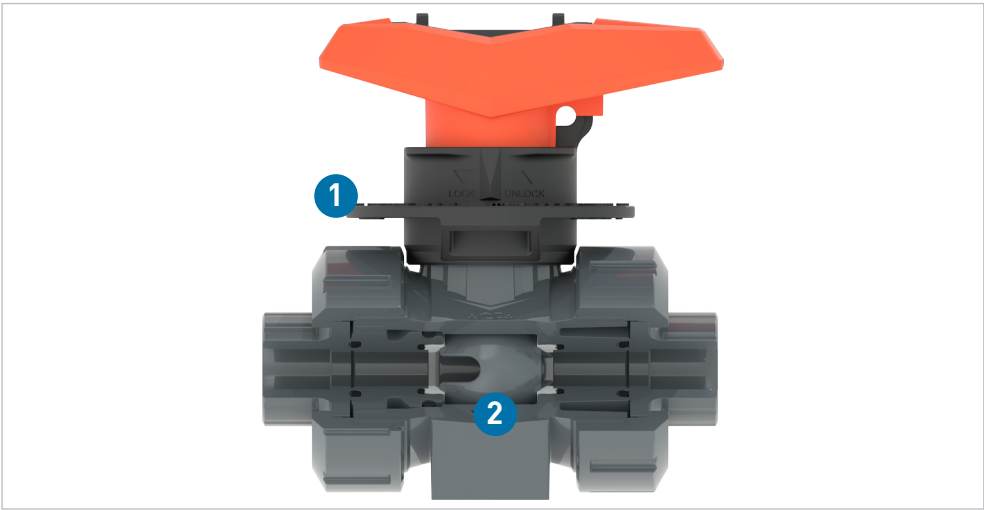
d	DN	Inch	Total number of screws (for 2 flange connections) standard nut ¹⁾	Torque (Reference values) Profile flange gasket ²⁾		Torque (Reference values) Flat gasket	
(mm)	(mm)	(inch)		(Nm)	(lb-ft)	(Nm)	(lb-ft)
20	15	½	8 x M12 x 50	10	7.4	10	7.4
25	20	¾	8 x M12 x 55	10	7.4	10	7.4
32	25	1	8 x M12 x 60	10	7.4	15	11
40	32	1 ¼	8 x M16 x 70	15	11	20	15
50	40	1 ½	8 x M16 x 70	15	11	25	18
63	50	2	8 x M16 x 80	20	15	35	26

- ¹⁾ For Type 546 Pro connecting parts made of PP in combination with backing flanges, use half of the standard nut height
- ²⁾ Preferred gasket Type (suited for plastics)

Product description



- 1 Union nut
- 2 Connecting part
- 3 Union seal
- 4 Union bush
- 5 Body seal
- 6 Backing seal
- 7 Ball seat
- 8 Ball (linear version)
- 9 Stem
- 10 Stem seals
- 11 Body
- 12 Index plate
- 13 Screws
- 14 Adapter with locking function
- 15 Position indicator
- 16 Lever (lockable)
- 17 Lever clip

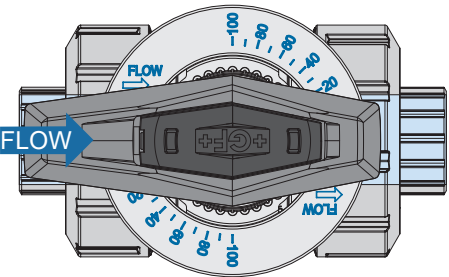


- 1 Special index plate with opening angle in %
- 2 Ball with linear flow characteristic

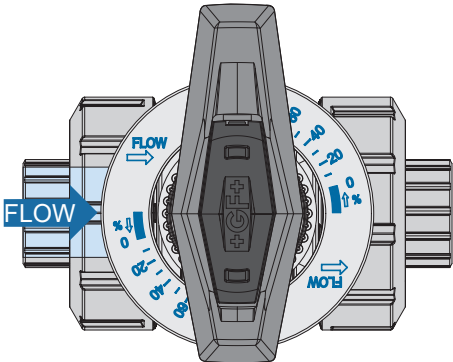


- With the backing seals, the ball has a floating position. This results in preloading and hence a constant seal. Stem, backing, housing and connection seals are made of EPDM or FKM.
- The stems with rated break point above the upper O-ring help prevent leaks to the outside in case of damage.

Valve in open position

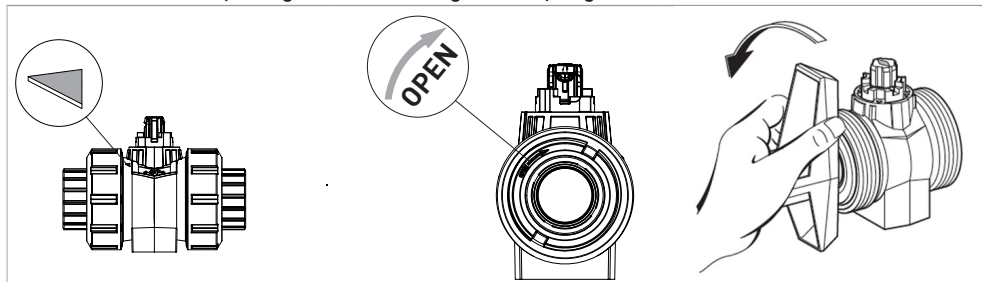


Valve in closed position



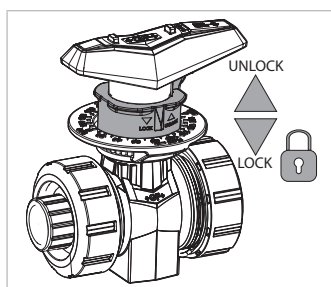
Union bushing

The design of the hand lever serves as a tool for installing the union bushings. The union bushing has a reverse thread in order to avoid unintentional opening when removing the coupling nuts or the thread connections.



Locking function

Move the ball valve to the desired open or closed position and press down the locking ring. Attach lock to eye to protect lever from unauthorized access.



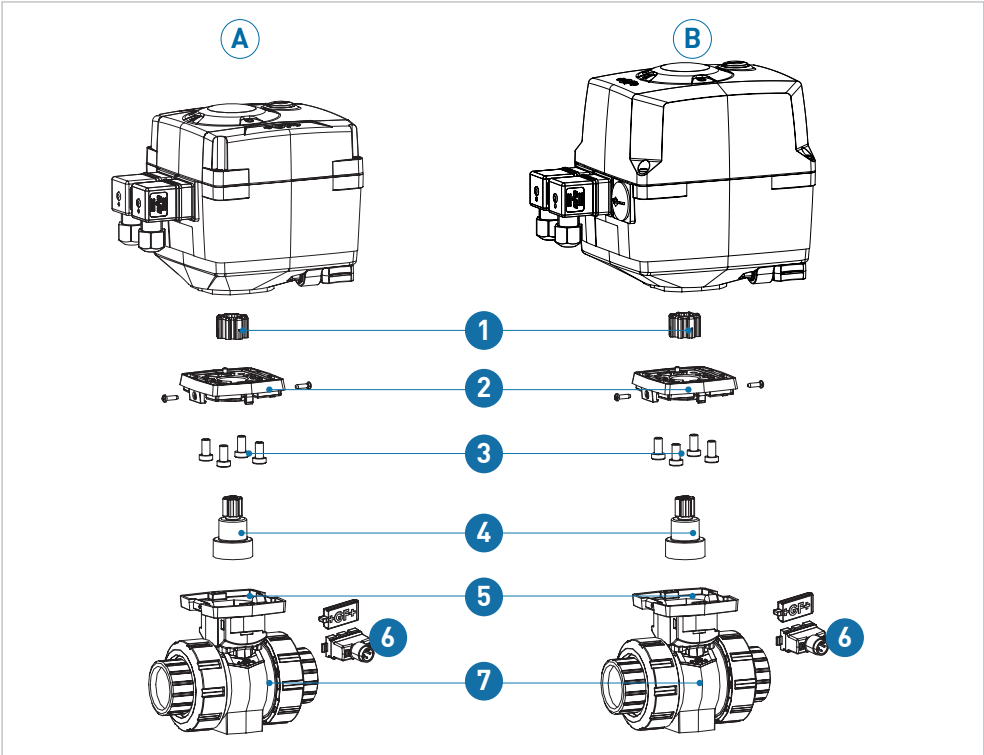
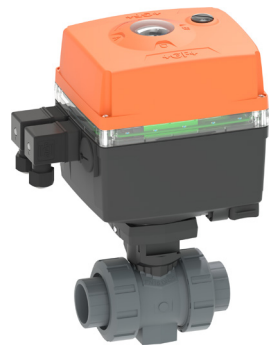
Valve handling

Removing the lever

When removing the lever, the locking ring must be in the open position (top).

Type 546 Pro, electric actuated EA15-250

Type 127 With electric actuator EA15	Type 179 – 184 With electric actuators EA	Type 179 – 184 With smart electric actuator dEA
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- A Actuator Type EA15
- B Actuator Type EA25/EA45/EA120
- 1 Adapter
- 2 Adapter plate
- 3 PT screws
- 4 Coupling piece
- 5 Interface housing
- 6 Labelling clip or double sensor for electrical position feedback (custom versions only)
- 7 Ball Valve Type 546 Pro

Specification			
Dimensions	Type 127	EA15	d16/DN10 – d63/DN50
	Type 179-184	EA25	d16/DN10 – d63/DN50
		EA45	d75/DN65
		EA120	d90/DN80 – d110/DN100
Base type	Type 546 Pro		

Differences between types 127 and 179 – 184

	Type 127	Type 179	Type 180	Type 181	Type 182	Type 183	Type 184
PVC-U	x	x			x	x	x
PVC-C	x	x			x		x
ABS	x	x				x	
PP-H	x		x				x
PVDF				x			x
ISO	x	x	x	x			
ASTM	x		x	x	x		
BS	x					x	
JIS	x						x

- The actuators are manufactured according to the specification of EN 61010-1, EC 89/336/EEC-EMV 73/23/EEC, LVD.
- All actuators have the CE marking.
- The actuator housings are made of PPGF (fiberglass-reinforced polypropylene) and external, stainless steel screws with low flammability.
- All electric actuators have an emergency manual override and an optical position indicator.

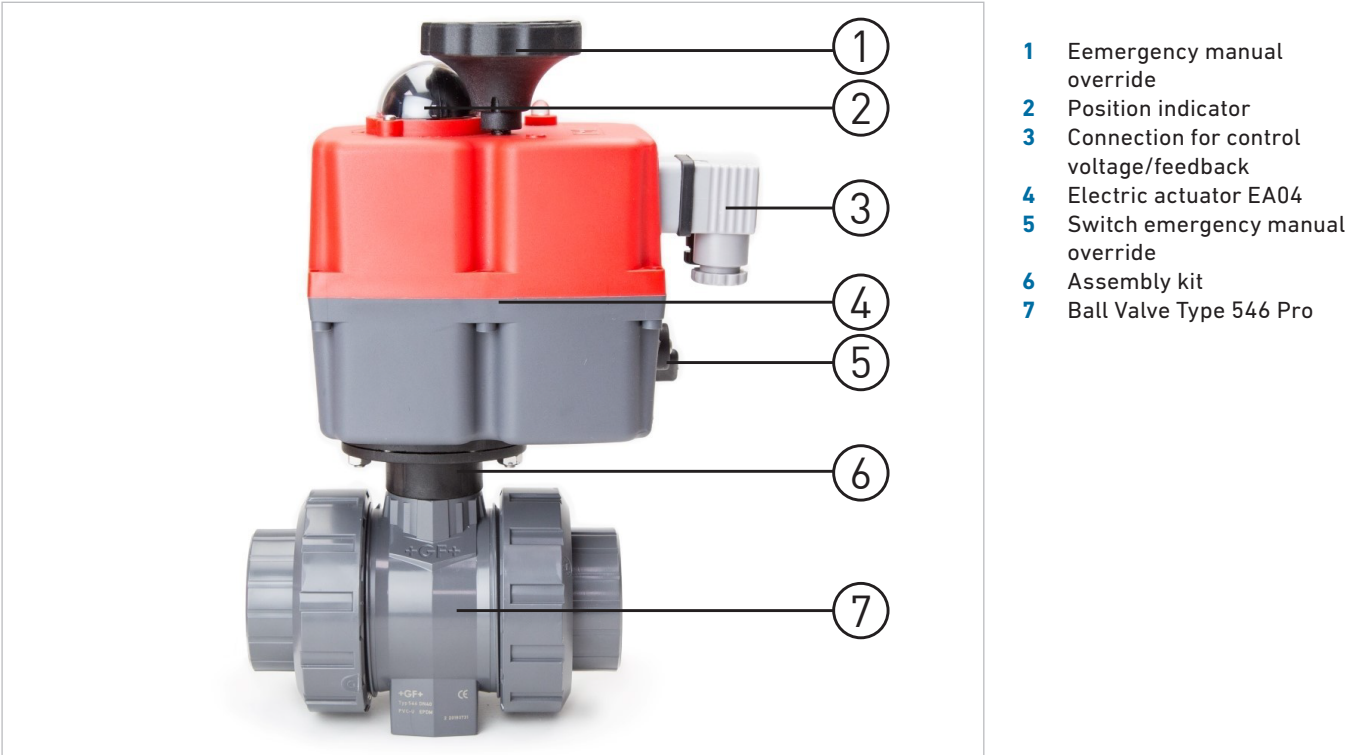
Properties of electric actuators

Actuator	Cycle time	Nominal torque	Actuating cycles at 20 °C	Duty cycle at 25 °C/15min
EA15	5s/90°	10Nm	150 000	40%
EA25 / dEA25	5s/90°	10 Nm	250 000	100%
EA45 / dEA45	6s /90°	20 Nm	100 000	50%
EA120 / dEA120	15s/90°	60 Nm	100 000	50%
EA250 / dEA250	20s/90°	100 Nm	75 000	35%



All electric actuators have an IP67 rating in accordance with EN 60529 (with vertical installation and appropriate cable connection).

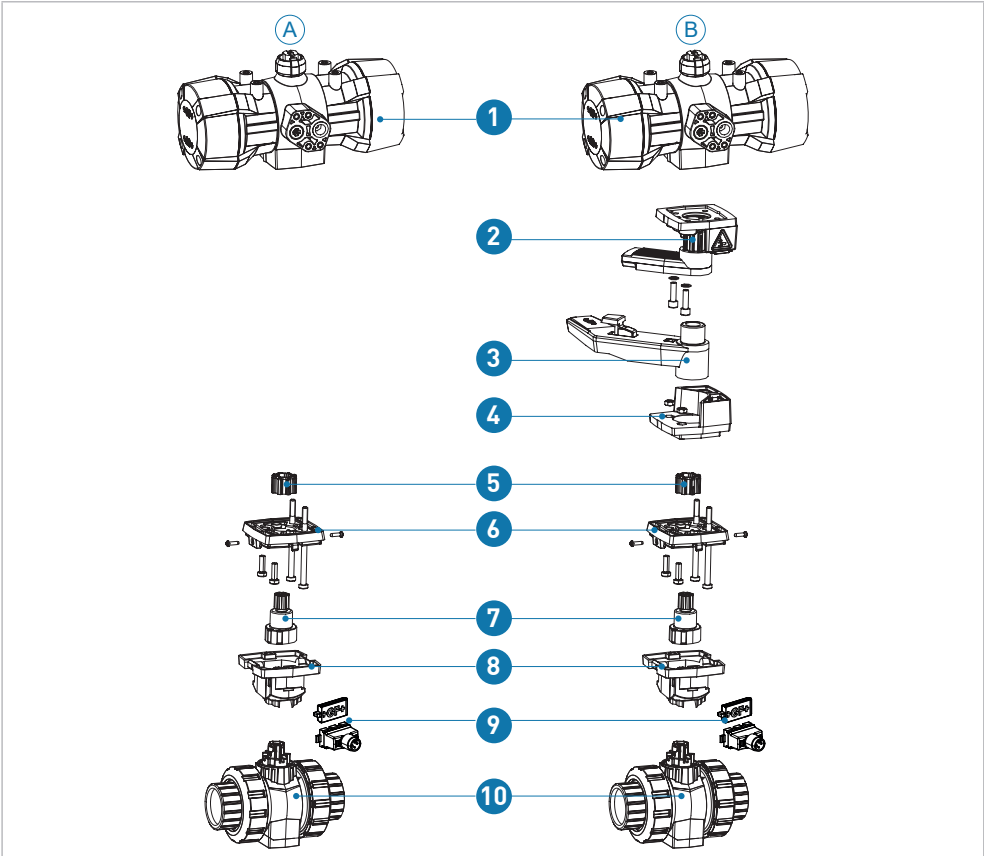
Type 546 Pro, electric actuated EA04



Specification			
Dimensions	Type 104	EA04	d16/DN10 – d63/DN50
Base type	Type 546 Pro		
Nominal torque	20 Nm		
Voltage	85 - 240 V AC/DC		

Type 546 Pro, pneumatic actuated

Type 546 Pro P, DN10-DN50 with pneumatic actuator PPA08-40, without manual override	Type 546 Pro P, DN10-DN50 with pneumatic actuator PPA08-40, with manual override	Type 546 Pro P, DN65-DN100 with pneumatic actuator PPA80, without manual override
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- A** Type 546 Pro P, with pneumatic actuator type PPA, without manual override
- B** Type 546 Pro P, with pneumatic actuator type PPA, with manual override
- 1** Actuator type PPA
- 2** Coupling lever with upper intermediate element
- 3** Control lever
- 4** Lower intermediate element
- 5** Adapter
- 6** Adapter plate
- 7** Coupling piece
- 8** Interface housing
- 9** Labelling clip or double sensor for electrical position feedback
- 10** Ball Valve Type 546 Pro

Specification		
Dimensions (standard 5.6 bar)	PPA08	DN10 – DN20
	PPA15	DN25 – DN32
	PPA40	DN40 – DN50
	PPA80	DN65 – DN100
Base type	546 Pro	

Installation notes

When installing the ball valve, ensure that it is always installed into the system in an opened ball position.

Selection of lubricant

All seals should be lubricated with a silicone-based grease. Using the wrong lubricants can damage the material of the ball valve or seals.

- Mineral oil-based and Vaseline (petrolatum) are not appropriate.
- For silicone-free ball valves, please consult the special manufacturer's instructions.

Maintenance notes

Ball valves require no maintenance under normal operating conditions (clear water). However, the following measures must be considered:

- Regularly check that no medium escapes to the outside.
- We recommend a function test for ball type valves that are kept permanently in the same position 1 – 2 times per year to check functionality.



Installation and maintenance must be performed according to the corresponding installation instructions. The installation manual is included with the product and can also be found at www.gfps.com/is-manuals-valves

Electric actuated

Installation notes

During installation, ensure that the actuator is correctly built onto and connected to the correct valve. In order to guarantee control provided on the customer side, the following points must be observed:

- Actuate valves with 90° rotary movement.
- Indicate the previously calibrated end positions of the valve via an electrical signal to the aforementioned system control.
- If the supply voltage fails, the actuator should remain in its current position. For this purpose, the installation of the manual override or the position reset unit is recommended (see accessories).

In case of interruption in the supply voltage, ensure that the actuator remains in the current position. For this, installation of an emergency manual override or reset unit is recommended (refer to "Accessories").

Maintenance notes

Set maintenance intervals as per the conditions of use (e.g., actuating cycles, medium, ambient temperature). As part of the regular system inspection, carry out the following maintenance activities:

- Check that cover of the emergency manual override is correctly fitted. If necessary, fit cover.
- Check that housing cover of the actuator is fitted with 4 screws. Insert screws if necessary.
- Check if grating noises are coming from the actuator. Replace actuator, see assembly instructions for building valve with actuator.
- Check that position display matches signal of the control. If necessary, adjust limit switches.

For frequent control operations or due to chemical attack on the sealing material, it may become necessary to replace parts inside the valve.

Pneumatic actuated

Installation notes

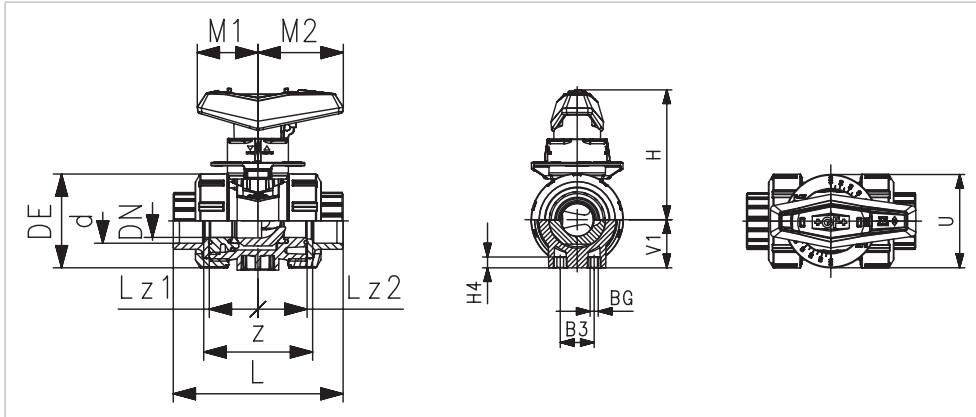
- The type 546 Pro P ball valves can be controlled to the OPEN and CLOSED positions via a built-on solenoid valve. The solenoid valve is either supplied ex GF works or installed by the customer.
- The OPEN and CLOSED positions can be indicated by the double sensor (available as an accessory), which send an electric signal to the plant control system or optically output the valve position (red/green LED).

Product description

- The actuators are available with the functions fail-safe to close (FC), fail-safe to open (FO) or double-acting (DA) and are provided with an optical position indicator.
- The housing of the actuator is made of fiberglass-reinforced polypropylene (PP-GF) and therefore has low flammability.
- For simple installation of positioners, limit switches and accessories, the actuators have an integrated NAMUR interface. For reliable electrical feedback, the valves are equipped with a interface module that is installed between valve body and actuator.

Dimensions and Ordering

Linear Ball Valve type 546 Pro with sockets



DN (mm)	d (mm)	Size (inch)	M1 (mm)	M2 (mm)	Lz1 (mm)	Lz2 (mm)	V1 (mm)	H (mm)	Hmax (mm)	DE (mm)	BG (mm)	B3 (mm)	H4 (mm)	U (mm)
10	16	3/8	35	47	28.0	28.0	27	72	99	50	M6	25	12	59
15	20	1/2	35	47	28.0	28.0	27	72	99	50	M6	25	12	59
20	25	3/4	44	62	32.5	32.5	30	91	121	58	M6	25	12	68
25	32	1	44	62	35.5	35.5	36	96	132	68	M6	25	12	68
32	40	1 1/4	57	74	42.5	42.5	44	116	160	84	M8	45	15	81
40	50	1 1/2	57	74	44.5	44.5	51	122	173	97	M8	45	15	81
50	63	2	66	86	50.5	50.5	64	141	205	124	M8	45	15	91

PVC-U

Linear ball valve type 546 Pro PVC-U, with solvent cement sockets metric

DN (mm)	d (mm)	Size (inch)	PN (bar)	L (mm)	z (mm)	EPDM Code	FKM Code
15	20	1/2	16	95	64	161 546 951	161 546 961
20	25	3/4	16	110	72	161 546 952	161 546 962
25	32	1	16	123	79	161 546 953	161 546 963
32	40	1 1/4	16	146	94	161 546 954	161 546 964
40	50	1 1/2	16	157	95	161 546 955	161 546 965
50	63	2	16	183	107	161 546 956	161 546 966



PVC-C

Linear ball valve type 546 Pro PVC-C, with solvent cement sockets metric

DN (mm)	d (mm)	Size (inch)	PN (bar)	L (mm)	z (mm)	EPDM Code	FKM Code
15	20	1/2	16	95	67	163 546 951	163 546 961
20	25	3/4	16	110	76	163 546 952	163 546 962
25	32	1	16	123	82	163 546 953	163 546 963
32	40	1 1/4	16	146	98	163 546 954	163 546 964
40	50	1 1/2	16	157	99	163 546 955	163 546 965
50	63	2	16	183	111	163 546 956	163 546 966



Linear ball valve type 546 PVC-C, with mounting inserts/With PB INSTAFLEX sockets metric

DN (mm)	d (mm)	Size (inch)	PN (bar)	L (mm)	H (mm)	z (mm)	EPDM Code
15	20	1/2	10	95	57	64	761 066 349
20	25	3/4	10	110	67	72	761 066 356
25	32	1	10	123	73	79	761 066 357
32	40	1 1/4	10	146	90	94	761 066 358
40	50	1 1/2	10	157	97	95	761 066 359
50	63	2	10	183	116	107	761 066 278



ABS

Linear Ball valves 546 Pro L ABS, with solvent cement sockets metric

DN (mm)	d (mm)	Size (inch)	PN (bar)	L (mm)	z (mm)	EPDM Code
10	16	3/8	16	95	64	169 546 701
15	20	1/2	16	95	64	169 546 702
20	25	3/4	16	110	72	169 546 703
25	32	1	16	123	79	169 546 704
32	40	1 1/4	16	146	94	169 546 705
40	50	1 1/2	16	157	95	169 546 706
50	63	2	16	183	107	169 546 707

**PROGEF Standard PP-H**

PROGEF Standard Linear ball valve type 546 Pro PP-H, with fusion sockets metric

DN (mm)	d (mm)	Size (inch)	PN (bar)	L (mm)	z (mm)	EPDM Code	FKM Code
15	20	1/2	10	95	67	167 546 961	167 546 971
20	25	3/4	10	108	76	167 546 962	167 546 972
25	32	1	10	118	82	167 546 963	167 546 973
32	40	1 1/4	10	136	97	167 546 964	167 546 974
40	50	1 1/2	10	147	101	167 546 965	167 546 975
50	63	2	10	168	114	167 546 966	167 546 976

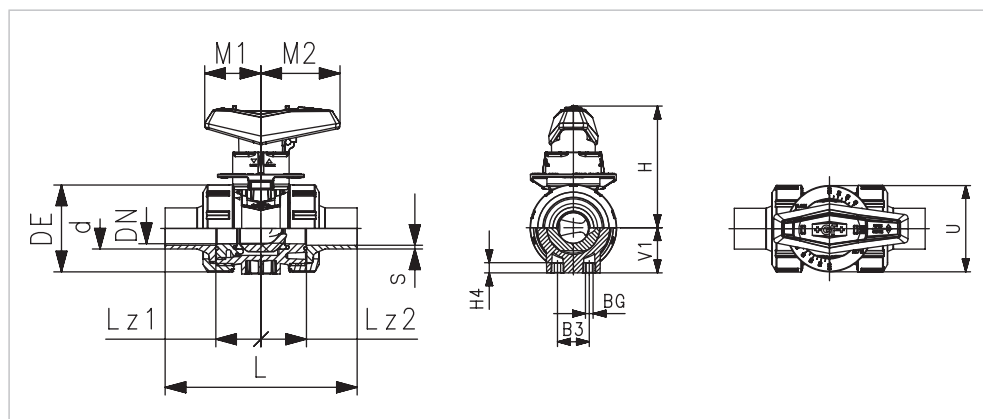
**SYGEF Standard PVDF**

SYGEF Standard Linear ball valve type 546 Pro, with fusion sockets metric

DN (mm)	d (mm)	Size (inch)	PN (bar)	L (mm)	z (mm)	FKM Code
15	20	1/2	16	95	67	175 546 961
20	25	3/4	16	108	76	175 546 962
25	32	1	16	118	82	175 546 963
32	40	1 1/4	16	136	97	175 546 964
40	50	1 1/2	16	147	101	175 546 965
50	63	2	16	168	114	175 546 966



Linear Ball Valve type 546 Pro with spigots



DN (mm)	d (mm)	Size (inch)	M1 (mm)	M2 (mm)	Lz1 (mm)	Lz2 (mm)	V1 (mm)	H (mm)	Hmax (mm)	DE (mm)	BG (mm)	B3 (mm)	H4 (mm)	U (mm)
10	16	3/8	35	47	28.0	28.0	27	72	99	50	M6	25	12	59
15	20	1/2	35	47	28.0	28.0	27	72	99	50	M6	25	12	59
20	25	3/4	44	62	32.5	32.5	30	91	121	58	M6	25	12	68
25	32	1	44	62	35.5	35.5	36	96	132	68	M6	25	12	68
32	40	1 1/4	57	74	42.5	42.5	44	116	160	84	M8	45	15	81
40	50	1 1/2	57	74	44.5	44.5	51	122	173	97	M8	45	15	81
50	63	2	66	86	50.5	50.5	64	141	205	124	M8	45	15	91

SYGEF Standard PVDF

SYGEF Standard Linear ball valve type 546 Pro, with butt fusion spigot IR-Plus metric

DN (mm)	d (mm)	Size (inch)	PN (bar)	L (mm)	s (mm)	FKM Code
15	20	1/2	16	130	1.9	175 546 991
20	25	3/4	16	143	1.9	175 546 992
25	32	1	16	150	2.4	175 546 993
32	40	1 1/4	16	171	2.4	175 546 994
40	50	1 1/2	16	191	3.0	175 546 995
50	63	2	16	219	3.0	175 546 996



Actuated versions

Linear ball valves type 546 Pro are available as electric actuated and pneumatic actuated versions.

For dimensions and accessories, see ball valve type 546 Pro.



For further information, visit: [Datasheet type 546 Pro](#)

Spare parts

Central part 546 Pro

- Every connecting pieces and union nuts are listed on product range industry valves
- Ball seals standard in PTFE
- Central part consisting of: body (1), union bush (2), ball (5), stem (6), ball-, backing-, body-, faceand stem seal (7-11), standard lever (12) and threaded inserts stainless steel (14)

DN (mm)	d (mm)	Size (inch)	PVC-U EPDM Code	PVC-U FKM Code	PVC-C EPDM Code	PVC-C FKM Code	ABS EPDM Code	PP-H EPDM Code	PP-H FKM Code	PVDF FKM Code
10	16	¾	161 487 562	161 487 572	163 487 562	163 487 572	169 487 562	167 487 562	167 487 572	175 487 562
15	20	½	161 487 562	161 487 572	163 487 562	163 487 572	169 487 562	167 487 562	167 487 572	175 487 562
20	25	¾	161 487 563	161 487 573	163 487 563	163 487 573	169 487 563	167 487 563	167 487 573	175 487 563
25	32	1	161 487 564	161 487 574	163 487 564	163 487 574	169 487 564	167 487 564	167 487 574	175 487 564
32	40	1 ¼	161 487 565	161 487 575	163 487 565	163 487 575	169 487 565	167 487 565	167 487 575	175 487 565
40	50	1 ½	161 487 566	161 487 576	163 487 566	163 487 576	169 487 566	167 487 566	167 487 576	175 487 566
50	63	2	161 487 567	161 487 577	163 487 567	163 487 577	169 487 567	167 487 567	167 487 577	175 487 567
65	75	2 ½	161 486 157	161 486 169	163 481 257	163 481 269	169 480 757	167 482 882	167 482 894	175 482 969
80	90	3	161 486 158	161 486 170	163 481 258	163 481 270	169 480 758	167 482 883	167 482 895	175 482 970
100	110	4	161 486 159	161 486 171	163 481 259	163 481 271	169 480 759	167 482 884	167 482 896	175 482 971



Seal set, for ball valve type 546 and linear ball valve

DN (mm)	d (mm)	Size (inch)	EPDM Code	FKM Code	KALREZ Code
10	16	¾	161 486 400	161 486 410	161 488 280
15	20	½	161 486 400	161 486 410	161 488 280
20	25	¾	161 486 401	161 486 411	161 488 281
25	32	1	161 486 402	161 486 412	161 488 282
32	40	1 ¼	161 486 403	161 486 413	161 488 283
40	50	1 ½	161 486 404	161 486 414	161 488 284
50	63	2	161 486 405	161 486 415	161 488 285
65	75	2 ½	161 486 406	161 486 416	
80	90	3	161 486 407	161 486 417	
100	110	4	161 486 408	161 486 418	



Accessories

Adapter for padlocks, for Ball valve type 546 Pro

- Accessory for ball valve type 546 Pro
- Accepts Shackle Diameter up to 9/32in (7mm)
- Holds up to 2 safety padlocks

DN (mm)	d (mm)	Size (inch)	Code	Quantity
10 - 50	16 - 63	3/8 - 2	198 546 099	1 pcs.



Transparent lever clip for ball valve labelling

- Component for ball valve Type 546 Pro, 543 Pro, 523 Pro
- Material: SAN
- UV-, weather- and chemical resistant
- Allows valve marking in conjunction with perforated printing sheets
- Perforated printing sheets are not included (depending on dimension see 198 807 231 - 198807 236)

DN (mm)	d (mm)	Size (inch)	Code	Quantity
10 - 15	16 - 20	3/8 - 1/2	198 807 221	10 pcs.
20 - 25	25 - 32	3/4 - 1	198 807 222	10 pcs.
32 - 40	40 - 50	1 1/4 - 1 1/2	198 807 223	5 pcs.
50	63	2	198 807 224	5 pcs.
65 - 80	75 - 90	2 1/2 - 3	198 807 225	5 pcs.
100	110	4	198 807 226	5 pcs.



Printing sheets for ball valve labelling

- Component for ball valve Type 546 Pro, 543 Pro, 523 Pro
- Material: DIN A4 Polymer-sheet
- UV-, weather- and chemical resistant
- Allows valve marking in conjunction with transparent lever clip
- Can be labelled with laser printers or by hand
- Transparent lever clip is not included (depending on dimension see 198 807 221 - 198 807 226)

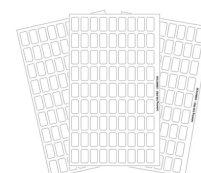
DN (mm)	d (mm)	Size (inch)	25 sheets code	Quantity	100 sheets code	Quantity
10	16	3/8	198 807 231	25 Sheets with each 48 Labels	198 807 241	100 Sheets with each 48 Labels
15	20	1/2	198 807 231	25 Sheets with each 48 Labels	198 807 241	100 Sheets with each 48 Labels
20	25	3/4	198 807 232	25 Sheets with each 24 Labels	198 807 242	100 Sheets with each 24 Labels
25	32	1	198 807 232	25 Sheets with each 24 Labels	198 807 242	100 Sheets with each 24 Labels
32	40	1 1/4	198 807 233	25 Sheets with each 18 Labels	198 807 243	100 Sheets with each 18 Labels
40	50	1 1/2	198 807 233	25 Sheets with each 18 Labels	198 807 243	100 Sheets with each 18 Labels
50	63	2	198 807 234	25 Sheets with each 11 Labels	198 807 244	100 Sheets with each 11 Labels
65	75	2 1/2	198 807 235	25 Sheets with each 6 Labels	198 807 245	100 Sheets with each 6 Labels
80	90	3	198 807 235	25 Sheets with each 6 Labels	198 807 245	100 Sheets with each 6 Labels
100	110	4	198 807 236	25 Sheets with each 4 Labels	198 807 246	100 Sheets with each 4 Labels



Printing sheets for ball valve labelling

- Component for ball valve Type 546 Pro
- Material: Polymer-sheet
- UV-, weather- and chemical resistant
- Allows valve marking in interface module
- Can be labelled with laser printers or by hand
- Compatible with interface module

DN (mm)	d (mm)	Size (inch)	Code	Quantity
10 - 50	16 - 63	¾ - 2	198 807 230	25 Sheets à 81 Labels

**Handle extension 546 and 543 PVC-U metric**

- For ball valve type 546 and 543
- Composed of adapter sockets for handle connection and stem connection
- PVC-U pipe in suitable length has to be obtained on site

DN (mm)	d (mm)	Size (inch)	Code PVC-U metric	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	D (mm)
10 - 15	16 - 20	¾ - ½	161 486 435	41	52	29	36	26
20 - 25	25 - 32	¾ - 1	161 486 436	50	62	32	39	36
32 - 40	40 - 50	1 ¼ - 1 ½	161 486 437	65	76	34	44	40
-- 50	-- 63	-- 2	161 486 438	84	87	37	48	44

**Mounting plate 546 Pro and 543 PP-GF (L02)**

- 2 mounting screws inclusive

DN (mm)	d (mm)	Size (inch)	Code	B (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)
10 - 25	16 - 32	¾ - 1	167 484 110	48	8	20	14	4	106	92	62	31	41	25
32 - 50	40 - 63	1 ¼ - 2	167 484 111	54	9	20	14	4	149	34	104	52	62	45



Manual spring return unit for ball valves 546 Pro Retrofit kit

- Manual spring return unit ("Dead-man lever") ensures that the valve closes after operation
- For safe sampling, dosing, cleaning or draining
- Retrofit possible with ball valve 546 (Pro)
- Includes transparent clip for valve labelling

Option: • Double sensor for position feedback

Note: *optional accessory to use a bigger lever for higher operating torque

DN (mm)	d (mm)	Size (inch)	Code
10 - 15	16 - 20	3/8 - 1/2	198 546 082
20 - 25	25 - 32	3/4 - 1	198 546 083
Adapter for bigger lever*	Bigger size lever*		
198 546 088	167 484 549 (DN20)		
198 546 089	167 484 551 (DN32)		



Manual Interface module, for Ball Valve Type 546 Pro & 543 Pro

- Accessory for manual ball valve type 546 Pro and 543 Pro
- Position feedback through double sensor with LED (PNP, NPN and NAMUR) possible
- Inclusive labelling clip

Note: Ball Valve 543 Pro requires an additional spacer ring (DN10-15: 198543000, DN20-25: 198543001, DN32-40: 198543002, DN50: 198543003)

DN (mm)	d (mm)	Size (inch)	Code	DN10-50	DN65-100
10 - 15	16 - 20	3/8 - 1/2	198 546 102		
20 - 25	25 - 32	3/4 - 1	198 546 103		
32 - 40	40 - 50	1 1/4 - 1 1/2	198 546 105		
50	63	2	198 546 107		
65 - 80	75 - 90	2 1/2 - 3	198 546 108		
100	110	4	198 546 109		

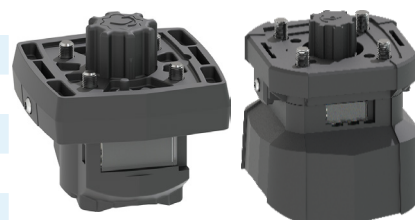


Interface module for GF actuators (EA/ PA/PPA), for ball valve type 546/543 Pro

- Interface module acts as interface between GF actuators and ball valves
- Position feedback through double sensor with LED (PNP, NPN and NAMUR) possible
- Inclusive labelling clip
- Electrical position feedback: Double sensor with LED (PNP, NPN, NAMUR) possible as standard for PPA interface while on request only for EA interface

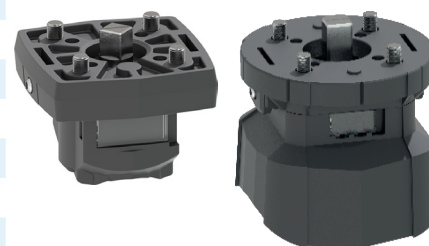
Note: Ball Valve 543 Pro requires an additional spacer ring (DN10-15: 198543000, DN20-25: 198543001, DN32-40: 198543002, DN50: 198543003)

DN (mm)	d (mm)	Size (inch)	Code Pneumatic GF actuators PPA	Code Electric GF actuators EA/dEA
10 - 15	16 - 20	3/8 - 1/2	198 546 162	198 546 142
20	25	3/4	198 546 163	198 546 143
25	32	1	198 546 164	198 546 144
32	40	1 1/4	198 546 135	198 546 145
40	50	1 1/2	198 546 136	198 546 146
50	63	2	198 546 137	198 546 147
65 - 80	75 - 90	2 1/2 - 3	PPA40 198 546 165 PPA80 198546166	198 546 148
100	110	4	198 546 167	198 546 149


Interface module with parallel square head for ISO5211 actuators, for Ball Valve Type 543 Pro & 546 Pro

- Interface module connects non-GF actuators and ball valves
- Norm interface according to ISO 2023:5211 with parallel square head
- Inclusive transparent labelling clip
- No possibility for position feedback through double sensor with LED

DN (mm)	d (mm)	Size (inch)	SW	Code Norm actuators according to ISO 5211	DN10-50	DN65-100
10 - 15	16 - 20	3/8 - 1/2	SW09	198 546 022		
10 - 15	16 - 20	3/8 - 1/2	SW11/14	198 546 023		
20 - 25	25 - 32	3/4 - 1	SW09	198 546 024		
20 - 25	25 - 32	3/4 - 1	SW11/14	198 546 025		
32 - 40	40 - 50	1 1/4 - 1 1/2	SW11/14	198 546 026		
50	63	2	SW11/14	198 546 027		
65 - 80	75 - 90	2 1/2 - 3	SW11	198 546 128		
100	110	4	SW14	198 546 129		



Interface module with diagonal square head for ISO5211 actuators, for Ball Valve Type 543 Pro & 546 Pro

- Interface module connects non-GF actuators and ball valves
- Norm interface according to ISO 2023:5211 with diagonal square head
- Inclusive transparent labelling clip
- No possibility for position feedback through double sensor with LED

DN (mm)	d (mm)	Size (inch)	SW	Interface	Code Norm actuators according to ISO 5211
10 - 15	16 - 20	$\frac{3}{8}$ - $\frac{1}{2}$	SW09	F03/F05	198 546 122
10 - 15	16 - 20	$\frac{3}{8}$ - $\frac{1}{2}$	SW11/14	F03/F05	198 546 123
20 - 25	25 - 32	$\frac{3}{4}$ - 1	SW09	F03/F05	198 546 124
20 - 25	25 - 32	$\frac{3}{4}$ - 1	SW11/14	F03/F05	198 546 125
32 - 40	40 - 50	1 $\frac{1}{4}$ - 1 $\frac{1}{2}$	SW11/14	F05	198 546 126
50	63	2	SW11/14	F05	198 546 127

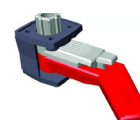

Coupling piece, for actuated ball valves type 546/543 Pro

- Spare part for ball valve type 543 Pro & 546 Pro (all actuated valves DN10-50)
- Only needed in case of breakage at the predefined breaking point in order to avoid leakage

DN (mm)	d (mm)	Size (inch)	PPA Code	EA15, EA25 Code
10 - 15	16 - 20	$\frac{3}{8}$ - $\frac{1}{2}$	198 546 200	198 546 220
20	25	$\frac{3}{4}$	198 546 201	198 546 221
25	32	1	198 546 202	198 546 222
32	40	1 $\frac{1}{4}$	198 546 203	198 546 223
40	50	1 $\frac{1}{2}$	198 546 204	198 546 224
50	63	2	198 546 205	198 546 225


Intermediate element to type 546 Pro P, with manual override

DN (mm)	d (mm)	Size (inch)	Code
10 - 50	16 - 63	$\frac{3}{8}$ - 2	198 000 501


Intermediate element (screws/distance pieces/reducing bush), for actuator units pneumatic PA30-45, To type 546

DN (mm)	d (mm)	Size (inch)	Type of actuator	Code
65	75	2 $\frac{1}{2}$	PA30 FC/FO	198 000 595
65	75	2 $\frac{1}{2}$	PA35 DA	198 000 595
80	90	3	PA40 FC/FO	198 000 596
80	90	3	PA40 DA	198 000 595
100	110	4	PA40 FC/FO	198 000 599
100	110	4	PA45 DA	198 000 599



Mounting insert

- Material: A2
- to retrofit the fixing: ball valve type 546

DN (mm)	d (mm)	Size (inch)	Code	
10 - 25	16 - 32	3/8 - 1	161 486 014	
10 - 25	16 - 32	3/8 - 1	161 486 538	1 bag containing 10 pieces
32 - 80	40 - 90	1 1/4 - 3	161 486 448	
32 - 80	40 - 90	1 1/4 - 3	161 486 539	1 bag containing 10 pieces
-- 100	-- 110	-- 4	161 486 540	1 bag containing 10 pieces

Double sensor for electrical position feedback, for ball valve type 546/543 Pro and butterfly valve type 565

- Accessory for Ball Valve type 546 Pro, 543 Pro and Butterfly Valve 565/567/578
- Enables electrical position feedback, incl. LED, in combination with GF interface module
- IP67 rating
- Female connector and cables available – see 198546150 – 154
- NAMUR version has ATEX and IECEx certification
- Dimensions: Ball Valves 546 Pro and 543 Pro

LED signal color	Function	Code
Closed: Green / Open: Red	PNP	198 546 001
Closed: Red / Open: Green	PNP	198 546 002
Closed: Green / Open: Red	NPN	198 546 005
Closed: Red / Open: Green	NPN	198 546 006
Closed: Green / Open: Red	NAMUR	198 546 003
Closed: Red / Open: Green	NAMUR	198 546 004

**Multi-pin plug, for double sensors type DCI and DTM**

- Accessory for Ball Valve type 546 Pro and Butterfly Valve 565
- Connects double sensor to PLC
- Cable is flame-resistant
- Degree of protection IP67 / IP68 / IP69K

Code	Model
198 546 150	Connector without cable
198 546 151	Connector with cable (5m PVC)
198 546 152	Connector with cable (10m PVC)
198 546 153	Connector with cable (5m PUR)
198 546 154	Connector with cable (10m PUR)

**AS-Interface type ASIM 2010, for manual valves with integrated feedback**

- Without accessories

Code	Model
199 190 568	AS-Interface type ASIM 2010



Solvent cement sockets

DN (mm)	d (mm)	Size (inch)	PVC-U metric (G01) Code	PVC-U JIS (G02) Code	PVC-U BS (G04) Code	PVC-U ASTM (G03) Code	PVC-C metric (G11) Code	PVC-C JIS (G12) Code	PVC-C ASTM (G13) Code
10	16	3/8	161 490 666	161 490 745	161 490 734	161 490 712	163 481 275		163 481 311
15	20	1/2	161 490 667	161 490 746	161 490 735	161 490 713	163 481 276	163 481 333	163 481 312
20	25	3/4	161 490 668	161 490 747	161 490 736	161 490 714	163 481 277	163 481 334	163 481 313
25	32	1	161 490 669	161 490 748	161 490 737	161 490 715	163 481 278	163 481 335	163 481 314
32	40	1 1/4	161 490 670	161 490 749	161 490 738	161 490 716	163 481 279	163 481 336	163 481 315
40	50	1 1/2	161 490 671	161 490 750	161 490 739	161 490 717	163 481 280	163 481 337	163 481 316
50	63	2	161 490 672	161 490 751	161 490 740	161 490 718	163 481 281	163 481 338	163 481 317
65	75	2 1/2	161 490 673	161 490 752	161 490 741	161 490 719	163 481 282	163 481 339	163 481 318
80	90	3	161 490 674	161 490 753	161 490 742	161 490 720	163 481 283	163 481 340	163 481 319
100	110	4	161 490 675	161 490 743	161 490 743	161 490 721	163 481 284	163 481 341	163 481 320



DN (mm)	d (mm)	Size (inch)	ABS metric (G20) Code	ABS BS (G21) Code
10	16	3/8	169 480 775	169 480 800
15	20	1/2	169 480 776	169 480 801
20	25	3/4	169 480 777	169 480 802
25	32	1	169 480 778	169 480 803
32	40	1 1/4	169 480 779	169 480 804
40	50	1 1/2	169 480 780	169 480 805
50	63	2	169 480 781	169 480 806
65	75	2 1/2	169 480 782	169 480 782
80	90	3	169 480 783	169 480 808
100	110	4	169 480 784	169 480 809



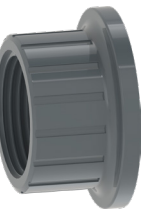
Fusion sockets

DN (mm)	d (mm)	Size (inch)	PE metric (G40) Code	PP-H metric (G30) Code	PVDF metric (G50) Code
10	16	3/8	193 480 175	167 482 900	175 483 025
15	20	1/2	193 480 176	167 482 901	175 483 026
20	25	3/4	193 480 177	167 482 902	175 483 027
25	32	1	193 480 178	167 482 903	175 483 028
32	40	1 1/4	193 480 179	167 482 904	175 483 029
40	50	1 1/2	193 480 180	167 482 905	175 483 030
50	63	2	193 480 181	167 482 906	175 483 031
65	75	2 1/2		167 482 907	175 483 032
80	90	3		167 482 908	175 483 033
100	110	4		167 482 909	175 483 034



Threaded sockets

DN (mm)	d (mm)	Size (inch)	PVC-U Rp (G06) Code	PVC-U Rp reinforced (G07) Code	PVC-U Rp (G08) Code	PVC-U NPT (G09) Code	PVC-C Rp (G15) Code	PVC-C Rp reinforced (G16) Code	PVC-C NPT (G17) Code
10	16	3/8	161 490 690	161 490 825	161 490 755	161 490 723	163 481 286	163 481 400	163 481 322
15	20	1/2	161 490 691	161 490 826	161 490 756	161 490 724	163 481 287	163 481 401	163 481 323
20	25	3/4	161 490 692	161 490 827	161 490 757	161 490 725	163 481 288	163 481 402	163 481 324
25	32	1	161 490 693	161 490 828	161 490 758	161 490 726	163 481 289	163 481 403	163 481 325
32	40	1 1/4	161 490 694	161 490 829	161 490 759	161 490 727	163 481 290	163 481 404	163 481 326
40	50	1 1/2	161 490 695	161 490 830	161 490 760	161 490 728	163 481 291	163 481 405	163 481 327
50	63	2	161 490 696	161 490 831	161 490 761	161 490 729	163 481 292	163 481 406	163 481 328
65	75	2 1/2	161 490 697		161 490 762	161 490 730	163 481 293		163 481 329
80	90	3	161 490 698		161 490 763	161 490 731	163 481 294		163 481 330
100	110	4	161 490 699			161 490 732	163 481 295		163 481 331

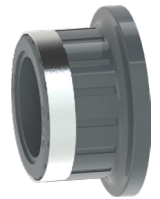


DN (mm)	d (mm)	Size (inch)	ABS Rp (G22) Code	PVDF NPT (G53) Code
10	16	3/8	169 480 786	175 483 058
15	20	1/2	169 480 787	175 483 059
20	25	3/4	169 480 788	175 483 060
25	32	1	169 480 789	175 483 061
32	40	1 1/4	169 480 790	175 483 062
40	50	1 1/2	169 480 791	175 483 062
50	63	2	169 480 792	175 483 064
65	75	2 1/2		
80	90	3		
100	110	4		



Threaded sockets reinforced

DN (mm)	d (mm)	Size (inch)	PVC-U JIS (G20) Code	PVC-C Rp (G16) Code	ABS Rp (G23) Code	PP-H Rp reinforced (G33) Code	PP-H NPT reinforced (G34) Code
10	16	3/8	161 490 825	163 481 400	169 480 925	167 482 911	167 482 966
15	20	1/2	161 490 826	163 481 401	169 480 926	167 482 912	167 482 967
20	25	3/4	161 490 827	163 481 402	169 480 927	167 482 913	167 482 968
25	32	1	161 490 828	163 481 403	169 480 928	167 482 914	167 482 969
32	40	1 1/4	161 490 829	163 481 404	169 480 929	167 482 915	167 482 970
40	50	1 1/2	161 490 830	163 481 405	169 480 930	167 482 916	167 482 971
50	63	2	161 490 831	163 481 406	169 480 931	167 482 917	167 482 972



Solvent cement spigots

DN (mm)	d (mm)	Size (inch)	PVC-U metric (G05) Code	PVC-C metric (G14) Code
10	16	3/8	161 490 701	163 481 300
15	20	1/2	161 490 702	163 481 301
20	25	3/4	161 490 703	163 481 302
25	32	1	161 490 704	163 481 303
32	40	1 1/4	161 490 705	163 481 304
40	50	1 1/2	161 490 706	163 481 305
50	63	2	161 490 707	163 481 306
65	75	2 1/2	161 490 708	163 481 307
80	90	3	161 490 709	163 481 308
100	110	4	161 490 710	163 481 309



Butt fusion spigots

DN (mm)	d (mm)	Size (inch)	ecoFIT PE metric SDR11 (G41) Code	ecoFIT PE metric SDR17,6 (G42) Code
15	20	1/2	193 480 102	
20	25	3/4	193 480 103	
25	32	1	193 480 104	
32	40	1 1/4	193 480 105	193 480 086
40	50	1 1/2	193 480 106	193 480 087
50	63	2	193 480 107	193 480 088



Butt fusion spigots long

DN (mm)	d (mm)	Size (inch)	ecoFIT PE metric long SDR11 (G43) Code	ecoFIT PE metric long SDR17,6 (G44) Code
15	20	1/2	193 480 152	
20	25	3/4	193 480 153	
25	32	1	193 480 154	
32	40	1 1/4	193 480 155	
40	50	1 1/2	193 480 156	
50	63	2	193 480 157	
65	75	2 1/2	193 480 158	193 480 168
80	90	3	193 480 159	193 480 169
100	110	4	193 480 160	193 480 170



Butt fusion spigots IR-Plus®

DN (mm)	d (mm)	Size (inch)	PP-H metric SDR11 (G35) Code	PP-H metric SDR17,6 (G36) Code	PP-N metric SDR11 Code	PVDF metric (G52) Code
15	20	1/2	167 482 945		168 480 260	175 483 048
20	25	3/4	167 482 946		168 480 261	175 483 049
25	32	1	167 482 947		168 480 262	175 483 050
32	40	1 1/4	167 482 948	167 482 937	168 480 263	175 483 051
40	50	1 1/2	167 482 949	167 482 938	168 480 264	175 483 052
50	63	2	167 482 950	167 482 939	168 480 265	175 483 053
65	75	2 1/2	167 482 951	167 482 940		175 483 054
80	90	3	167 482 952	167 482 941		175 483 055
100	110	4	167 482 953	167 482 942		175 483 056



Butt fusion spigots IR-Plus® long

DN (mm)	d (mm)	Size (inch)	PP-H metric long SDR11 (G37) Code
15	20	½	167 482 956
20	25	¾	167 482 957
25	32	1	167 482 958
32	40	1 ¼	167 482 959
40	50	1 ½	167 482 960
50	63	2	167 482 961



Socket fusion spigots

DN (mm)	d (mm)	Size (inch)	PVDF metric (G51) Code
10	16	⅜	175 483 036
15	20	½	175 483 037
20	25	¾	175 483 038
25	32	1	175 483 039
32	40	1 ¼	175 483 040
40	50	1 ½	175 483 041
50	63	2	175 483 042



Valve end blank

- Flat sealing faces

DN (mm)	d (mm)	Size (inch)	PVDF metric (G51) Code
15	20	½	161 490 837
20	25	¾	161 490 838
25	32	1	161 490 839
32	40	1 ¼	161 490 840
40	50	1 ½	161 490 841
50	63	2	161 490 842



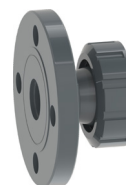
Union nut

DN (mm)	d (mm)	Size (inch)	PVC-U Code	PVC-C Code	ABS Code	PP-H Code	PVDF Code
10	16	⅜	161 490 538	163 481 226	169 480 713	167 482 712	175 482 937
15	20	½	161 490 538	163 481 226	169 480 713	167 482 712	175 482 937
20	25	¾	161 490 539	163 481 227	169 480 714	167 482 713	175 482 938
25	32	1	161 490 540	163 481 228	169 480 715	167 482 714	175 482 939
32	40	1 ¼	161 490 541	163 481 229	169 480 716	167 482 715	175 482 940
40	50	1 ½	161 490 542	163 481 230	169 480 717	167 482 716	175 482 941
50	63	2	161 490 543	163 481 231	169 480 718	167 482 717	175 482 942
65	75	2 ½	161 490 544	163 481 232	169 480 719	167 482 718	175 482 943
80	90	3	161 490 545	163 481 233	169 480 720	167 482 719	175 482 944
100	110	4	161 490 546	163 481 234	169 480 721	167 482 720	175 482 945



Fixed flanges

DN (mm)	d (mm)	Size (inch)	PVC-U metric (G60) Code	PVC-U inch JIS (G62) Code	PP-H metric (G63) Code	PVDF metric (G64) Code
15	20	½	161 486 360	161 486 350	167 484 160	175 483 285
20	25	¾	161 486 361	161 486 351	167 484 161	175 483 286
25	32	1	161 486 362	161 486 352	167 484 162	175 483 287
32	40	1 ¼	161 486 363	161 486 353	167 484 163	175 483 288
40	50	1 ½	161 486 364	161 486 354	167 484 164	175 483 289
50	63	2	161 486 365	161 486 355	167 484 165	175 483 290

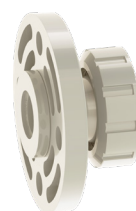


Backing flanges

DN (mm)	d (mm)	Size (inch)	PVC-U metric (G70) Code	PVC-U ANSI (G71) Code	PVC-U JIS (G78) Code	PVC-U PP-St metric (G72) Code	PVC-U PP-St ANSI (G73) Code	PVC-C PP-St metric (G72) Code	PVC-C PP-St ANSI (G73) Code
15	20	½	161 486 265	161 486 275		161 486 285	161 486 425	163 481 412	163 481 425
20	25	¾	161 486 266	161 486 276		161 486 286	161 486 426	163 481 413	163 481 426
25	32	1	161 486 267	161 486 277		161 486 287	161 486 427	163 481 414	163 481 427
32	40	1 ¼	161 486 268	161 486 278		161 486 288	161 486 428	163 481 415	163 481 428
40	50	1 ½	161 486 269	161 486 279		161 486 289	161 486 429	163 481 416	163 481 429
50	63	2	161 486 270	161 486 280		161 486 290	161 486 430	163 481 417	163 481 430
65	75	2 ½	161 486 271	161 486 281	161 486 201	161 486 291	161 486 431	163 481 418	163 481 431
80	90	3	161 486 272	161 486 282	161 486 202	161 486 292	161 486 432	163 481 419	163 481 432
100	110	4	161 486 273	161 486 283	161 486 203	161 486 293	161 486 433	163 481 420	163 481 433



DN (mm)	d (mm)	Size (inch)	PP-H JIS (G77) Code	PP-H PP-St metric (G72) Code	PP-H PP-St ANSI (G73) Code	SYGEF Stan- dard PP-St metric (G72) Code	SYGEF Stan- dard PP JIS (G76) Code
15	20	½	167 484 019		167 484 065		175 483 124
20	25	¾	167 484 020		167 484 066		175 483 125
25	32	1	167 484 021		167 484 067		175 483 126
32	40	1 ¼	167 484 022		167 484 068		175 483 127
40	50	1 ½	167 484 023		167 484 069		175 483 128
50	63	2	167 484 024		167 484 070		175 483 129
65	75	2 ½	167 484 481	167 484 418	167 484 071	175 483 294	
80	90	3	167 484 482	167 484 419	167 484 072	175 483 295	
100	110	4	167 484 483	167 484 420	167 484 073	175 483 296	



Adapter ring for valves

- Compatible with ball valves types 546/543/523/547 and check valves types 561/591
- Adapter ring makes it possible to use standard screw connections (e.g., metal inserts made of stainless steel, brass, or malleable cast iron with R or Rp threads) with ball valves and check valves
- Material: PP-GF (30% glass fiber reinforced)

DN (mm)	d (mm)	Size (inch)	Code
15	20	½	167 481 182
20	25	¾	167 481 183
25	32	1	167 481 184
32	40	1 ¼	167 481 185
40	50	1 ½	167 481 186
50	63	2	167 481 187



Face seal

DN (mm)	d (mm)	Size (inch)	EPDM Code	FKM Code
10	16	¾	748 410 059	749 410 059
15	20	½	748 410 059	749 410 059
20	25	¾	748 410 106	749 410 106
25	32	1	748 410 151	749 410 151
32	40	1 ¼	748 410 062	749 410 062
40	50	1 ½	748 410 003	749 410 003
50	63	2	748 410 231	749 410 231
65	75	2 ½	748 410 119	749 410 119
80	90	3	748 410 023	749 410 023
100	110	4	748 410 254	749 410 254



Electric Actuator EA25-250

The EA45/120/250 electric actuator is mounted on a valve (e.g. ball valve or butterfly valve) and connected to a control system provided by the customer. It actuates the valve with a rotary movement of up to 180°.

Code	Type	Voltage	Torque max.	Acc. to ISO 5211
198 153 180	EA15	AC 100-230V	20 Nm	F05 (SW 11/14)
198 153 181	EA15	AC/DC 24V	20 Nm	F05 (SW 11/14)
198 153 182	EA25	AC 100-230V	25 Nm	F05 (SW 11/14)
198 153 183	EA25	AC/DC 24V	25 Nm	F05 (SW 11/14)
198 153 184	EA45	AC 100-230V	45 Nm	F05 (SW 11/14)
198 153 185	EA45	AC/DC 24V	45 Nm	F05 (SW 11/14)
198 153 186	EA120	AC 100-230V	120 Nm	F07 (SW17)
198 153 187	EA120	AC/DC 24V	120 Nm	F07 (SW17)
198 153 188	EA250	AC 100-230V	250 Nm	F07 (SW17)
198 153 189	EA250	AC/DC 24V	250 Nm	F07 (SW17)



Smart Actuator dEA45-250

The Smart Actuator dEA45/120/250 is mounted on a valve (e.g. ball valve or butterfly valve) and connected to a control system provided by the customer. It actuates the valve with a rotary movement up to 180°. The Smart Actuator offers wireless connectivity via NFC and Wi-Fi Direct, as well as control and reading of process data via downloadable App.

Code	Type	Voltage	Torque max.	Acc. to ISO 5211
198 153 192	dEA25	AC 100-230V	25 Nm	F05 (SW 11/14)
198 153 193	dEA25	AC/DC 24V	25 Nm	F05 (SW 11/14)
198 153 194	dEA45	AC 100-230V	45 Nm	F05 (SW 11/14)
198 153 195	dEA45	AC/DC 24V	45 Nm	F05 (SW 11/14)
198 153 196	dEA120	AC 100-230V	120 Nm	F07 (SW17)
198 153 197	dEA120	AC/DC 24V	120 Nm	F07 (SW17)
198 153 198	dEA250	AC 100-230V	250 Nm	F07 (SW17)
198 153 199	dEA250	AC/DC 24V	250 Nm	F07 (SW17)



Pneumatic Actuator PPA

The PPA pneumatic actuator can be mounted on any rotary valves with an interface according to ISO 5211.

Single-acting FC

Code	Type	Torque max.	Acc. to ISO 5211
198 155 081	PPA08	7.65 Nm	F05
198 155 151	PPA15	18.33 Nm	F05
198 155 154	PPA15	18.33 Nm	F05
198 155 401	PPA40	36.35 Nm	F05
198 155 801	PPA80	81.83 Nm	F07
198 155 805	PPA80	81.83 Nm	F07



Single-acting F0

Code	Type	Drehmoment max.a Torque max.	Acc. to ISO 5211
198 155 082	PPA08	7.65 Nm	F05
198 155 152	PPA15	18.33 Nm	F05
198 155 155	PPA15	18.33 Nm	F05
198 155 402	PPA40	36.35 Nm	F05
198 155 802	PPA80	81.83 Nm	F07
198 155 804	PPA80	81.83 Nm	F07



Double-acting DA

Code	Type	Torque max.	Acc. to ISO 5211
198 155 043	PPA04	5.31 Nm	F03
198 155 083	PPA08	11.92 Nm	F05
198 155 153	PPA15	28.49 Nm	F05
198 155 403	PPA40	53.02 Nm	F05
198 155 803	PPA80	121.36 Nm	F07



Pneumatic Actuator PA30-90

The PA30 - PA90 pneumatic actuator can be mounted on any rotary valves with an interface according to ISO 5211.

Single-acting FC

Code	Type	Torque max.	Acc. to ISO 5211
198 811 617	PA30	30 Nm	F05/07
198 811 601	PA35	53 Nm	F05/07
198 811 609	PA40	60 Nm	F05/07
198 811 603	PA45	90 Nm	F07/10
198 811 610	PA50	120 Nm	F07/10
198 811 605	PA55	180 Nm	F07/10/12
198 811 652	PA60	240 Nm	F10/12
198 811 607	PA65	360 Nm	F10/12
198 811 612	PA70	480 Nm	F10/12



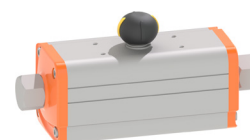
Single-acting F0

Code	Type	Torque max.	Acc. to ISO 5211
198 811 627	PA30	30 Nm	F05/07
198 811 628	PA35	53 Nm	F05/07
198 811 629	PA40	60 Nm	F05/07
198 811 630	PA45	90 Nm	F07/10
198 811 631	PA50	120 Nm	F07/10
198 811 632	PA55	180 Nm	F07/10/12
198 811 653	PA60	240 Nm	F10/12
198 811 654	PA65	360 Nm	F10/12
198 811 634	PA70	480 Nm	F10/12



Double-acting DA

Code	Type	Torque max.	Acc. to ISO 5211
198 811 616	PA30	30 Nm	F03/05
198 811 618	PA35	45 Nm	F03/05
198 811 619	PA40	60 Nm	F05/07
198 811 604	PA45	106 Nm	F05/07
198 811 613	PA50	120 Nm	F07/10
198 811 606	PA55	180 Nm	F07/10
198 811 614	PA60	240 Nm	F07/10
198 811 608	PA65	360 Nm	F07/10
198 811 615	PA70	480 Nm	F10/12



Accessories for electric actuators

Order code	Compatibility	Designation	Description
199 190 610	EA15	Fail-safe return unit with integrated battery pack	In case of a power outage, the fail-safe return unit can be used to move to a preset safe position (OPEN/CLOSE). Assembly in the housing actuator
199 190 601	EA25-250	External fail-safe return unit	In case of a power outage, the fail-safe return unit can be used to move to a preset safe position (OPEN/CLOSE). Voltage supply (24 V DC) implemented externally
199 190 611	EA15		
199 190 604	EA25-250		
199 190 603	EA25-250	Positioner	For continuous control operation (4-20 mA / 0-10 V)
199 190 602	EA25-250	Monitoring	For monitoring control time and motor current, as well as for extending the control times and counting the control cycles (even without bus system) via a collective alarm
199 190 605	EA25-250	Profibus	For integrating the actuator into a Profibus DP network
199 190 600		Diagnostic tool	For reading various data for a first error diagnosis via USB
199 190 562		AS-Interface module ASEV 2400	Connection to an AS-i network (supply in combination with limit switch kit)
198 000 587		Adapter SW 11 for F04	Modification for valves with F04 interface
198 204 057		Adapter SW 14 for F05	Modification for valves with F05 interface
198 803 145		Reducer bushing WS 11 for F05	Adjustment for valves with F05 interface and wrench size 11
198 000 502		Standard plug set	For the connection of accessories
199 190 606	EA25-250	Plug set 4 pin	For connection of MIDDLE position feedback
199 190 607		EA Demo Box	Box to demonstrate all functions of EA
199 190 612		Display 2-way	Optical position display for 2-way valve (10 pcs)
199 190 613	EA25-250	Display 3-way "L" horizontal	Optical position display for 3-way valve (10 pcs)
199 190 614	EA25-250	Display 3-way "T" horizontal	Optical position display for 3-way valve (10 pcs)
199 190 615	EA25-250	Display 3-way "L" vertical	Optical position display for 3-way valve (10 pcs)
199 190 616	EA25-250	Display 3-way "T" vertical	Optical position display for 3-way valve (10 pcs)
199 190 617	EA25-250	Modbus RTU Interface Card	Modbus RTU Interface board for Electric Actuators Type EA25 - EA250
199 190 660	EA25-250	Modbus TCP Interface Card	Modbus TCP Interface board for Electric Actuators Type EA25 - EA250
199 190 661	EA25-250	EtherNet/IP Interface Card	EtherNet/IP Interface board for Electric Actuators Type EA25 - EA250
199 190 662	EA25-250	PROFINET Interface Card	PROFINET Interface board for Electric Actuators Type EA25 - EA250
199 190 663	EA25-250	M12 Ethernet Adapter Set	Ethernet adapter set for version with M12 connector

Accessories for pneumatic actuators

Positioner Type RPC, Type RPC D, Type RPC PID for single- and double-acting rotary actuators

Designation	Code	Description
RPC	199 190 640	Positioner for single- and double-acting rotary actuators
RPC D	199 190 641	Position controller for single- and double-acting rotary actuators
RPC PID	199 190 644	Process controller for single- and double-acting rotary actuators



Solenoid pilot valve type PV95 3/2-way for single acting actuators

Order code	Description	Voltage	Cable plug shape	Hollow bolt, length	Compressed air connection (P)	Working connection actuator (A)
199190532	PV95 Pilot Valve, 0-10 bar	24 VDC	A	76 mm	G $\frac{1}{4}$ "	G $\frac{1}{8}$ "
199190533	PV95 Pilot Valve, 0-10 bar	24 VAC, 50 Hz	A	76 mm	G $\frac{1}{4}$ "	G $\frac{1}{8}$ "
199190534	PV95 Pilot Valve, 0-10 bar	110 VAC	A	76 mm	G $\frac{1}{4}$ "	G $\frac{1}{8}$ "
199190535	PV95 Pilot Valve, 0-10 bar	230 VAC	A	76 mm	G $\frac{1}{4}$ "	G $\frac{1}{8}$ "

Solenoid pilot valve type PV96 3/2 way valve for single acting actuators

Order code	Description	Voltage	Cable plug shape	Hollow bolt, length	Compressed air connection (P)	Working connection actuator (A)
199196100	PV96 Pilot Valve, 0-8 bar	24 VDC	B	76 mm	NPT $\frac{1}{8}$ "	G $\frac{1}{4}$ " *
199196101	PV96 Pilot Valve, 0-8 bar	24 VDC	B	60 mm	G $\frac{1}{8}$ "	G $\frac{1}{4}$ " *
199196102	PV96 Pilot Valve, 2-7 bar	24 VAC, 50 Hz	B	76 mm	NPT $\frac{1}{8}$ "	G $\frac{1}{4}$ " *
199196103	PV96 Pilot Valve, 0-8 bar	24 VDC	B	60 mm	G $\frac{1}{8}$ "; tube fitting Ø6mm	G $\frac{1}{4}$ " *
199196104	PV96 Pilot Valve, 2-7 bar	24 VAC, 50 Hz	B	60 mm	G $\frac{1}{8}$ "; tube fitting Ø6mm	G $\frac{1}{4}$ " *
199196105	PV96 Pilot Valve, 2-7 bar	110 VAC, 50 Hz	B	60 mm	G $\frac{1}{8}$ "; tube fitting Ø6mm	G $\frac{1}{4}$ " *
199196106	PV96 Pilot Valve, 2-7 bar	120 VAC, 60 Hz	B	76 mm	NPT $\frac{1}{8}$ "	G $\frac{1}{4}$ " *
199196107	PV96 Pilot Valve, 2-7 bar	230 VAC, 50 Hz	B	60 mm	G $\frac{1}{8}$ "; tube fitting Ø6mm	G $\frac{1}{4}$ " *
199196108	PV96 Pilot Valve, 2-7 bar	230 VAC, 50 Hz	B	60 mm	G $\frac{1}{8}$ "	G $\frac{1}{4}$ " *

Solenoid pilot valve type MNL532 3/2-& 5/2-way for single and double acting actuators with NAMUR interface

Order code	Description	Voltage
199 190 360	MNL532 pilot valve, 2-10 bar	230 V, AC
199 190 359	MNL532 pilot valve, 2-10 bar	115 V, AC
199 190 361	MNL532 pilot valve, 2-10 bar	48 V, AC
199 190 358	MNL532 pilot valve, 2-10 bar	24 V, AC
199 190 357	MNL532 pilot valve, 2-10 bar	24 V, DC

Solenoid pilot valve type PV2000

Order code	Description	Pilot valve compatibility
199 190 436	Solenoid pilot valve type PV2000	1 x 5/2-way valve
199 190 435	Solenoid pilot valve type PV2000	2 x 3/2-way valve



For further information on accessories, refer to the online product catalog at www.gfps.com

■ Mobile apps and online tools to support configuration and calculation at www.gfps.com/tools

